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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,331	06/12/2001	George C. Tibbetts	TIK-047	4064

959 7590 04/10/2003

LAHIVE & COCKFIELD
28 STATE STREET
BOSTON, MA 02109

EXAMINER

DONOVAN, LINCOLN D

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/879,331

Applicant(s)
Tibbetts et al.

Examiner
Lincoln Donovan

Art Unit
2832



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 12, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 10 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson [US 4272654] in view of VanHalteren et al. '947 [US 5757947] and VanHalteren et al. [US 5,809,158].

Carlson discloses an electromagnetic transducer [11] comprising:

- a permanent magnet means [24, 25] forming a flux field extending in a direction between opposing pole faces across a working gap [figure 1];
- an electrical signal coil [23]; and
- an elongate armature [36] supported at one end thereof, extending through the coil having its other end extending into the gap, being vibratory in the direction and "adapted" for connection to a diaphragm; and
- drive pin means [27] cooperating with the diaphragm.

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Carlson disclose the instant claimed invention except for: a snubber means secured in relation to the permanent magnet means and the snubbing member providing predetermined clearances and the drive pin means for the diaphragm being mounted at the end of the armature.

VanHalteren et al. '947 disclose a transducer including a permanent magnet means [5, 7] cooperating with a signal coil [3] and an armature [11] having a "snubber" means [17] secured to and extending between the permanent magnet means including legs extending normal to the magnetic flux field [figure 4] and means [15] cooperating with the diaphragm/membrane.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the "snubber" means of VanHalteren et al. with Carlson, for the purpose of providing a limiting means for the armature.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to connect the drive pin to the end of the armature, as suggested by VanHalteren et al. '947, for the purpose of reducing force needed to actuate the diaphragm.

VanHalteren et al. '158 discloses a snubber member providing predetermined clearances [figures 4-5].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide clearances in the snubber of Carlson in view of VanHalteren et al. '947, as suggested by VanHalteren et al. '158, for the purpose of reducing necessary tolerances.

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Regarding claim 2, Carlson discloses the armature having an outer arm extending from the permanent magnet means parallel to the other end and a connecting portion integral with and connecting between the ends [figure 1].

Regarding claims 4-8, VanHalteren et al. further discloses the pair of permanent magnets attached to a strap [21] with the "snubber" means mounted thereon and a separate filler piece [5.7] surrounding the permanent magnets [figure 3].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the strap/filler design of VanHalteren et al. in Carlson, for the purpose of controlling the flux loop.

The specific configuration of the filler would have been an obvious design consideration based on the specific desired operating parameters of the transducer.

Allowable Subject Matter

3. Claims 9-10 are allowed.

Response to Arguments

4. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

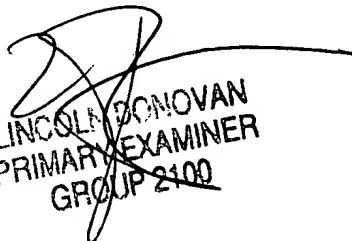
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lincoln Donovan whose telephone number is (703) 308-3111.

The fax number for this Group is (703)-872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)308-0956.

LDD

April 8, 2003


LINCOLN DONOVAN
PRIMARY EXAMINER
GROUP 2100